The Trolley, Symbol of Modernism, Now Penetrates Earth's Remote Places

Pilgrims to the Holy Land Use It to Explore the Streets of the Holy City, Jerusalem, Venturesome Climbers Find It Useful in Scaling Vesuvius, While the Head-Hunters of Formosa Have Been Greatly Chastened by Costly Contact with the Live Wire.

SOME weeks ago most of us Americans were surprised, if not jarred, by the announcement that the trolley car was to intrude in all its spirit of modernity upon the traditional archaicism of Jerusalem. We have so long thought of the ass and the camel as instruments of carriage in that out-of-the-way corner of the world that the thought of the trolley gong clanging there seems almost like a desecration. And yet Jerusalem is but responding to conditions which are outgrowing the sacred limits of its walls and building up beyond its ancient boundaries populous suburbs—hence the need of rapid transit. The telephone has already taken its place in the daily life of the Holy City.

Within the last three decades a transformation has been wrought in Jerusalem. From an Old World city it has been changed into a typically progressive one of to-day, but this revolution has been effected so discreetly that no offence has been given native Oriental conservatism—at least so we are told; but, in fact, the steam roller has played a part in the altered life. Only a short while ago one of our big motor road rollers arrived in Jerusalem, and surely the trolley car is even less shocking to the Eastern mind. Thousands of Jewish immigrants have been taking their way to the Holy City annually for some years, and a large part of these new arrivals have had to make their homes outside of the city walls. The old gates, formerly closed at sundown, are now always open, and some of the gateways have actually been obliterated. The effect of these changes has been greatly to expand the city limits and to call for speedier means of transit. It is said that the Mahometan population is falling rapidly behind the Jewish increase, and the Holy City is in a fair way to become in fact, as well as in name, the capital city of the Hebrew race. That probably explains why it is borrowing ideas from New York.

The trolley car for a goodly number of years now has been working wonders in the way of facilitating intercommunication among neighboring towns favorably situated and in developing suburban properties, and it has gradually created a network of lines in some states which make it possible for a person to travel well-nigh without a break for several hundred miles.

SWINGING THE PAST FORWARD.

But the trolley has done something besides this. It has intruded itself, so to speak, in out-of-the-way parts of the world and brought into native life a form of transit which has virtually leaped forward many hundreds of years beyond their previously existing facilities. The electric tramway has done other things: It has made it possible for the tourist to reach easily and speedily points of interest which in the past have been inaccessible or prohibitively expensive to the average traveller.

One of the first of the distant places to encourage the trolley was Bangkok, Siam. This was brought about by the influence of American advisers, then high in the favor of the late ruler of the Land of the White Elephant. Prior to that time bullock carts did duty upon the land for those not forced to rely upon shank's mare for locomotion, while boats of an endless variety furnished means of transportation upon the muddy Meinam and its many canal-like tributaries at the capital city. It is said that the project hung in abeyance for some time because of native superstition and the fear that the wailing motors might disturb the calm of the sacred elephants, but the royal leaning toward modernity won in the end, and the road was built. Up to that time the native police had worn a full dress consisting of a helmet and a breech-cloth, but this uniform was not considered quite in keeping with the simultaneous advent of incandescent lights and the electric tram, so the bronze legs of the guardians of the peace were promptly clothed in European trousers. This was too much for the laughter-loving native populace, and the crowds that quickly gathered about the police threatened to block rapid transit or to promote an unwarranted casualty list. The trousers were removed, and both the police and the electric cars moved with their designed freedom.

Bombay, India, because of British influence, has been a comparatively progressive corner of the Orient for a good many years, but it followed the lead set by Bangkok in the matter of electric street railways. To-day Bombay boasts a typical American installation of forty-four miles of tramway tracks within the so-called city system. The native element looked somewhat askance at the innovation, but promptly set itself to enjoy this speedy mode of travel as soon as the lines were in working order. The most interesting part of the building of the line was the manner in which the natives did the necessary street excavating and allied labor. In that part of the world the wheelbarrow and the pick are seldom seen. In place of the pick the Hindu employs a sort of grubbing hoe, and for the carriage of dirt and other spoils he has recourse to shallow, bowl-like baskets. Just the same, the laborers accomplish a good deal in the course of a day, and in this work both the men and the women co-operate, the women bearing the excavated material away in baskets upon their heads.

We all know how strenuously Corea, the hitherto hermit nation, has resisted all innovations of the Western world, but we also know something of the changes forced upon that ultra-conservative people by Japan after the war with Russia. To-day, much against its will, Corea has a single line of trolley cars running out of Chemulpo, and the natives find it a much better way of covering the dusty highway than the means formerly at their disposal. This line was built by one of our great engineering companies, which has done much pioneer work in trolley construction. It is the intention to extend this service to the ancient capital of the country, Seoul, twenty-five miles inland. One cannot help but wonder what the conservative Coreans think of this modern marvel, which now speeds without visible means of propulsion over its highways, travelled for centuries by its toiling coolies and tugging ponies.

IGNORANCE IS DANGER.

Probably one of the most interesting engineering achievements is the trolley line in South Africa which runs between Cape Town and Camps Bay. Apart from overcoming natural obstacles and breaking a way for the route through heavy rocks, the line has to climb to a height of more than eight hundred feet above the sea, and from that position it commands a magnificent view of Table Bay. Native labor was very extensively employed in the construction of the road, any many funny stories are told of the negro's wonderment when the horseless tram was first set in motion. No end of care had to be exercised in keeping the African from satisfying his overpowering curiosity at the expense of his life or physical welfare. When the system was in full operation the cars provided for these laughter loving children of a larger growth were literally packed with all that could find standing room and who had the necessary fare. The trolley cars were far more of a source of amazement to the black man than the dazzling glow of the incandescent light, which reached that part of the world earlier.

The march of American imperialism has carried the electric trolley across the Pacific Ocean. Honolulu has a thoroughly up-to-date electric line, and the road winds out of the town and carries the sightseer to the crest of the famous Punch Bowl, five hundred feet above the sea. The line has proved popular with both the traveller and the residents—both native and foreign born. This is easily to be understood, because the wonderfully equable climate soon promotes a spirit of easy going indolence, and any means of rapid and effortless transportation is at a premium.

Immediately after our war with Spain, and while conditions were yet unsettled in the Philippines, a great American engineering company went out to Manila to construct the Manila Electric Railroad. We have had an example right at our front door of Spanish supineness, and we know how backward Cuba was from the standpoint of engineering advancement up to 1898, and the Philippines represented this laggard state of things several times multiplied by minus. Such was Manila when our constructional pioneers took up the task of modernizing that old city. The problem was something more than merely overcoming civic inertness—the climatic conditions presented some obstacles of their own. Not only did the dampness of the climate corrode the rails, necessitating generous coatings of asphaltum paint, but the white ant promptly set about destroying the wooden ties until they were made unpalatable by being impregnated with jodelite or with carbolineum. The tubular steel poles, which readily meet our atmospheric conditions here, were rapidly rusted by the humid air of the Philippines, and poles of native wood had to be substituted. The white ants did not limit their ravages to the roadbed—they attacked the rolling stock as well, and soon showed that the woods commonly employed in the building of cars for lines here would not withstand the attack of these destructive insects. As a result, it became necessary to employ teak extensively, which added considerably to the expense of the raw material and its fabrication. A great part of the constructional work and excavating were done by Filipinos, and the habits of these people called for a good deal of watchfulness in order to keep them on the job.

The native is an inveterate gambler, and his first impulse is to start a little game as soon as he has a few pennies in his pocket. The luncheon hour furnished the period of worst temptation, and at first most of the earnings went to pay for that excitement, instead of the needful nourishment. Finally the builders recruited lunchmen, who were stationed near the line and right on hand to provide a superior temptation in the way of food, This worked beautifully, and with mutual benefit. The Manila Electric Railroad has about forty miles of track, and some of this in the suburbs had to be run through a veritable jungle. Apart from what this imposes upon the upkeep of the line, it offered many difficulties and dangers to the surveyors engaged upon plotting the route. The tropical jungles of the Philippines abound in native snakes of varying degrees of menace, and we all know what malaria means in that part of the world. However, the line was completed with commendable speed, and has been running continuously and profitably since the spring of 1906.

But Hawaii and the Philippines are not the only outlying possessions that we have helped to modernize by the introduction of the intrusive trolley. Down in slumberous Porto Rico we have built an electric railway first in San Juan and then about thirty miles toward the interior to Caguas, which is a populous town in the centre of a very rich tobacco and sugar growing territory. This line is a composite passenger and freight trolley service, and is accomplishing wonders in the way of facilitating traffic and trade. Within San Juan the electric line has supplanted a funny little one-horse tramway, which for years furnished the only cheap means of public conveyance. The horses looked as though they were walking in their sleep, and the very vehicles themselves resembled fourposters on wheels. We can easily imagine that the native that had business to do found this mode of travel a convenient means of combining locomotion with a siesta.

Who has not heard of Oolong tea, but do you know that it comes from faraway Formosa? Most of us recall the Island Beautiful as the home of head hunters, who for generations swarmed down upon the rich Chinese land owners and went back to the hills either with rich tribute or carried away the head of some obstinate mandarin or merchant prince. After Japan's war with China she set herself the task of driving these native bandits to the remote fastnesses of Formosa's rugged mountains, and she also undertook to reap the fruit of the island's commercial riches. Formosa has nearly four hundred miles of electric tramways in operation and under construction, and besides feeding from the capital, Keelung, into the out-of-the-way corners of the island for passenger service, these lines tap the great sugar and camphor districts, and are an important element in developing these industries as well as of providing ready outlets for the fast-growing bamboo pulp factories. For a while after the Japanese built these tramways the head hunters caused some interruptions to traffic by cutting down the poles, but after the burning lesson of the death dealing "live wire" had been scorched deeply into their savage minds, they let the "lightning makers" alone. The Japanese have shown a pronounced spirit of progressiveness in dealing with the building of modern tramways in Formosa, and surely and slowly the savage Formosan is either being reconciled to civilization or forced to retreat further and further into the island's rugged wilderness in the mountains.

The Japanese have adopted the electric trolley for street and suburban service in many of their important cities, and gradually the "ricksha man" is being forced more and more from the frequented highways. While this means of transportation undoubtedly facilitates trade and the tourings of the Western sightseer, still it robs the native atmosphere of some of its ancient charm of local color. However, the present day Japanese is decidedly utilitarian, and he welcomes anything from the Caucasian world which will help him to make money faster and to hold his own in this age of mechanical progress.

Even conservative China is surrendering to the lure of the electric line, and trolley systems now exist in a number of her larger seaports. Hankow is the latest to welcome this method of urban traffic, and twenty million dollars is the sum to be spent in revolutionizing the streets and the car service of that city. The Chinese have already accomplished a number of important railroad undertakings, but, despite the introduction of these modern facilities, the native still persist in using the simplest and most primitive implements in carrying out the work. Just the same, it is remarkable what the Celestial can do. If the trolley line passes over a waterway or upon shaky ground, piling is necessarily resorted to, and pile drivers are seldom if ever seen. However, John Chinaman sets his pile in position and pinches it between two long poles of very thick bamboo, and, with these firmly strapped together, a crowd of chattering coolies cling to the outstretched arms; by sheer weight the pile is forced into the mud or soft earth. When the top of the pile has come down to their own level, these coolies, aided by a big stone held firmly between two pieces of timber, hammer the stake securely into its resting place. Like the Hindu laborers in India, the Chinaman will have nothing to do with the wheelbarrow—he clings to his wicker basket, instead.

But constructional work in China has to contend with a form of superstition centuries old. We refer to that development of Chinese geomancy which the natives term "Feng-Shui." "Feng-Shui" is the native expression for what we might term the symmetry of local topography, and when nature has not quite met the needs of this imaginary balance, the Chinaman sets about building pagodas, etc., to establish the right physical poise. He places his house so as not to disturb this imaginary balance, and he buries his dead so that they may always enjoy peace in their long repose by subscribing to these circumstances of land and water and the prevailing winds. Woe to the native or to the foreigner who disturbs this equilibrium. Not long ago a party of American engineers working upon an electric line in China unhappily plotted their surveys in a maner to threaten the local "Feng-Shui," and one of our gunboats had to be dispatched with utmost speed to their rescue. There are a good many places where the railways have made expensive detours in order to avoid antagonizing the natives in this way. It sounds droll, and is funny, but it shows the concessions which modernity has to make in the Far East to mysticism.

The trolley has obtained a footing, so to speak, in the Malay Peninsula and also in French Indo-China. The difficulty in that part of the world is in furnishing accommodations for the various classes. We all know what caste means in the Orient. The lower natives have taken kindly to the trolley lines, but they have not yet adjusted their habits to meet fully some of the standards which this modern convenience imposes. Into these cars the farmer native carries his baskets or balances of vegetables, poultry, pigs, etc., which are usually swung over his shoulders upon bamboo poles. One can easily imagine the condition which this leads to. In British India, Calcutta, like Bombay, now has its electric tramways, and the City of Palaces is otherwise quite up to date. It is a far cry from the "Black Hole" to the trolley car, and yet the ancient and the modern rub elbows in Calcutta at every turn.

By way of emphasizing her up-to-dateness, Japan has built an electric railway in Dalny, thus making more modern that seaport of Southern Manchuria which she wrested from Russia during the late conflict. Before the dominance of the Japanese transportation or traffic facilities in Dalny were years behind the times. To skip from north to south, it is said that the capital of Ceylon, the lovely city of Colombo, now has a trolley service.

Americans have done a good deal toward supplying the principal cities of South America with electric tramways. Systems of this sort have been installed in Caracas, Venezuela; Para, Brazil; Montevideo, Uruguay, and at Buenos Ayres, Argentina. Electric railways have been built and are building in Valparaiso and in Tacna, Chili; Lima, Peru, and in Guayaquil and Quito, Ecuador. In several of these places local waterpower has greatly facilitated the installation of electric lines. Of course, one naturally expects electric traffic lines in Australia, and these progressive antipodeans have trolley systems at Melbourne, Perth and Kalgoorlie, while the neighboring New Zealanders have a trolley line at Auckland.

Probably one of the most progressive trolley systems is that in the city of Durban, Natal, South Africa. The line as first installed was of American origin in its equipment. You can ride cheaper if you buy tickets instead of paying cash for each single fare. But the most suggestive phase of the service is the streetcar parcels delivery. Parcels not exceeding twenty-eight pounds in weight nor larger than eighteen inches square, practically of all characters, are carried at a very moderate rate. The line is owned by the municipality. We have something to learn from that out-of-the-way section of South Africa. American enterprise is also responsible for the electric tram line at Patras, Greece.

The horse-drawn tramcar has been a common sight in Bagdad for years, and it is proposed to supplant that bid to progress by an electric line. This innovation might seem unreasonable if it were not for the restless reaching out of the tourist and the equally tireless efforts of the travel agencies to widen the range of their sightseeing tours. We have an example of this in the new electric line now running from Cairo to the ruins of Heliopolis. Egypt thus furnishes us with a strange contrast between the pyramids and this development of the engineering of to-day. Somehow we instinctively think of the camel as the appropriate means of rapid transit in that part of the world—the trolley is an unseemly anachronism.

The trolley car is not an innovation by any manner of means in European Russia of to-day, and this system of transportation breaks out in some of the odd corners of the empire. This is not hard to understand when one learns that there are probably a thousand miles of lines in the various Russian municipalities. In the smaller towns and cities of the Baltic provinces the trolley plays its part in providing transportation for the less prosperous, but these trams are usually run at decidedly moderate speed, and quicker motion and more exhilaration can be had by recourse to the abundant native drosky. The drivers of these vehicles are always ready for a race; the streets are narrow and the turnings abrupt, while your seating is anything but oversecure, hence the excitement of a ride in one of them. Probably when the trolley man becomes equally reckless these newfangled conveyances will fit in better with the spirited requirements of some grades of Russian citizenry.

For a number of years electric motor cars have made it easier to reach the summit of Mount Vesuvius. The line has to make a pretty stiff climb, but that is the very reason for its existence. It has made it possible for the tourists with underpinnings of Chippendale lines to reach the crater without overtaxing themselves, and the tourist agency responsible for the construction has found the enterprise decidedly worth while. But Vesuvius, with its moderate altitude of 4,200 feet, is hardly a circumstance to the climb the electric cars make among the mountains of Tyrol. The highest station on the Jungfrau has the exalted height of nearly 10,500 feet above the sea. However, the trolley cars make that ascent with apparent ease, thanks to the power the melting snows furnish at the hydro-electric plants. But Europe is destined soon to hold a very secondary place in this matter of mountain climbing electric tramways. Old Popocatepetl has been rearing its peak two miles heavenward for centuries, and the Mexicans are justly proud of that famous volcano. Its crest reaches far above the snowline—the summit being nearly eighteen thousand feet above the sea. On the rim of the crater a large hotel is to be built, and an English syndicate intends to run an electric railway from the City of Mexico to Puebla and to send a branch line thence up to the mountain top. At Necaxa there is a big hydro-electric plant, and that will be the source of power for the system. The crater of Popocatepetl has been mined for sulphur for a long time, and the new tramway will be used both for passenger and for freight service. It is said that the volcano contains fully 150,000,000 tons

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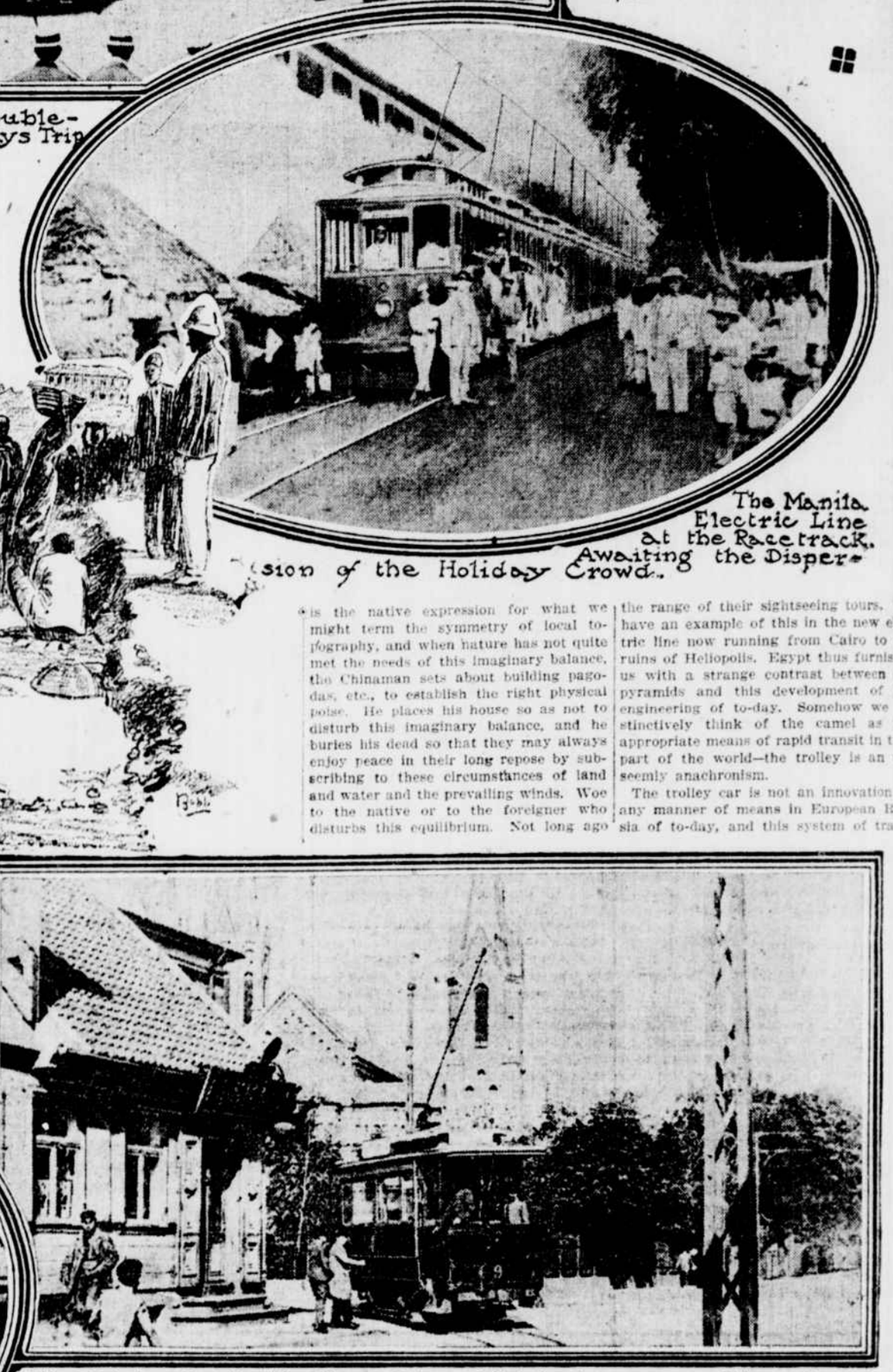
New York's First Double-decker on It's First Days Trip

Hindu Laborers Preparing the Way for the Bombay Electric Street Cars.



The Manila Electric Line at the Racetrack. Awaiting the Dispersion of the Holiday Crowd.

The Dinky Little Trolley Line Which Competes With the Droskys in Libau, Russia.

Filipinos Working Upon the Electric Line in Manila's Streets.

The Trolley System in Far-away Auckland, New Zealand.